

CLAIMS

What is claimed is:

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1. A method of distributing information from at least one information distribution server to a plurality of terminals via a network, comprising:
converting, in response to a request from a requesting terminal, requested information into display information in a format that can be utilized by the requesting terminal based on environment information for the requesting terminal.
 2. A method as recited in claim 1, wherein the environment information is obtained from an information request from the requesting terminal for the requested information.
 3. A method as recited in claim 2, wherein the environment information includes identification of an application executing on the requesting terminal that issued the information request.
 4. A method as recited in claim 3, further comprising determining whether to perform said converting by using the identification of the application to access an application function management table cross referencing a plurality of registered applications and functions provided by the registered applications.
 5. A method as recited in claim 4, wherein the identification of the application identifies a browser application, by name and version, that issued the information request.
 6. A method as recited in claim 4, wherein said determining is further performed by transmitting an inquiry to the requesting terminal when the application function management table is unable to determine whether a required function included in the requested information can be performed at the requesting terminal.

7. A method as recited in claim 6,

wherein said transmitting includes transmitting the inquiry with the required function incorporated therein, such that the inquiry can be responded to only if the required function executes properly on the requesting terminal, and

5 wherein said determining is further based on whether a response to the inquiry is received from the requesting terminal.

8. A method as recited in claim 4, further comprising determining how to perform said converting by using the identification of the application to access a processing function management table cross referencing the plurality of registered applications with ways to convert information.

9. A method as recited in claim 8, wherein the environment information is supplemented using a user identifier, corresponding to a user of the requesting terminal, to access a user management table cross referencing a plurality of user identifiers with at least one of applications available at user terminals and types of user terminals.

10. A method as recited in claim 1, wherein said converting includes converting a pointer that cannot be resolved by the requesting terminal, by replacing the pointer with the content pointed to.

11. A method as recited in claim 1, wherein said converting includes converting a pointer that cannot be resolved by the requesting terminal into a file name to be displayed.

12. A method as recited in claim 1, wherein said converting includes converting a link of a type that the application does not support into at least one link of a type supported by the application.

13. A method as recited in claim 12, wherein said converting converts at least one of extended links and both-way links into one-way links.

14. A system for distributing information to a plurality of terminals via a network, comprising:

a network interface unit, coupled to the network, to receive an information request from a requesting terminal and to transmit display information to the requesting

5 terminal; and

a converting function unit, coupled to said network interface unit, to convert requested information into the display information that can be utilized by the requesting terminal based on environment information for the requesting terminal.

15. A system as recited in claim 14,

wherein the environment information includes identification of an application executing on the requesting terminal, and

wherein said converting function unit includes an application function management unit to determine whether to convert the requested information by using the identification of the application to access an application function management table cross referencing a plurality of registered applications and functions provided by the registered applications.

16. A system as recited in claim 15, wherein said converting function unit includes an inquiry function unit to generate an inquiry for the requesting terminal when the application function management table is unable to determine whether a required function included in the requested information can be performed at the requesting terminal, the inquiry incorporating
5 the required function such that the inquiry can be responded to only if the required function executes properly on the requesting terminal, and said converting function unit determining what conversion is necessary based on whether a response to the inquiry is received from the requesting terminal.

17. A system as recited in claim 14,

10 wherein the environment information includes identification of an application
executing on the requesting terminal, and

wherein said converting function unit further includes a processing request management unit to determine how to convert the requested information by using the identification of the application to access a processing function management table cross referencing the
15 plurality of registered applications with ways to convert information.

18. A system as recited in claim 14, wherein said converting function unit further includes a user management table cross referencing a plurality of user identifiers with at least one of applications available at user terminals and types of user terminals to identify the environment information.

19. A system as recited in claim 14, wherein said converting function unit includes a link content identification unit to convert a pointer that cannot be resolved by the requesting terminal into one of content pointed to by the pointer and a file name to be displayed; and

a link information forming unit to convert at least one of a both-way link and an extended link for the application that cannot process such a link into at least one one-way link.

20. A computer readable storage controlling a computer to perform a method comprising:

converting, in response to a request from a requesting terminal, requested information into display information in a format that can be utilized by the requesting terminal based on environment information for the requesting terminal.

21. A computer readable storage as recited in claim 20, wherein the environment information is obtained from an information request from the requesting terminal for the requested information.

22. A computer readable storage as recited in claim 21, wherein the environment information includes identification of an application executing on the requesting terminal that issued the information request.

23. A computer readable storage as recited in claim 22, wherein said method further comprises determining whether to perform said converting by using the identification of the application to access an application function management table cross referencing a plurality of registered applications and functions provided by the registered applications.

24. A computer readable storage as recited in claim 23, wherein the identification of the application identifies a browser application, by name and version, that issued the information request.

25. A computer readable storage as recited in claim 23, wherein said determining is further performed by transmitting an inquiry to the requesting terminal when the application function management table is unable to determine whether a required function included in the requested information can be performed at the requesting terminal.

26. A computer readable storage as recited in claim 25,
wherein said transmitting includes transmitting the inquiry with the required function incorporated therein, such that the inquiry can be responded to only if the required function executes properly on the requesting terminal, and

5 wherein said determining is further based on whether a response to the inquiry is received from the requesting terminal.

27. A computer readable storage as recited in claim 23, wherein said method further comprises determining how to perform said converting by using the identification of the application to access a processing function management table cross referencing the plurality of registered applications with ways to convert information.

28. A computer readable storage as recited in claim 27, wherein the environment information is supplemented using a user identifier, corresponding to a user of the requesting terminal, to access a user management table cross referencing a plurality of user identifiers with at least one of applications available at user terminals and types of user terminals.

29. A computer readable storage as recited in claim 20, wherein said converting includes converting a pointer that cannot be resolved by the requesting terminal, by replacing the pointer with the content pointed to.

30. A computer readable storage as recited in claim 20, wherein said converting includes converting a pointer that cannot be resolved by the requesting terminal into a file name to be displayed.

31. A computer readable storage as recited in claim 20, wherein said converting includes converting at least one of a both-way link and an extend link for the application that cannot process such a link into at least one one-way link.

32. An information distribution method used by an information distribution service to receive a request for information distribution from a terminal connected via a network and to transmit requested information to the terminal, comprising:

verifying functions of an application used by the terminal that sent the request for information distribution upon receipt thereof;

determining whether the functions of the application can process requested information; and

converting, when it is determined that the process is impossible, the requested information into a format which may be processed by the application prior to transmission to the terminal.

33. An information distribution apparatus of an information distribution service to receive requests for information distribution from terminals connected thereto via a network and to transmit requested information to the terminals, comprising:

a conversion determination table provided for management of applications which may be operated on the terminal and corresponding functions to be processed by the applications;

an application identification unit to identify the application used by a requesting terminal when an information request is accepted from the requesting terminal;

a conversion determination unit, coupled to said conversion determination table and said application identification unit, to determine whether the application can process the requested information by referring to said conversion determination table;

a converting unit, coupled to said conversion determination unit, to convert the requested information into converted information that can be processed by the requesting terminal when it is determined that the application cannot process the requested information; and

a transmission unit, coupled to said converting unit, to transmit the converted information to the requesting terminal.

34. An information distribution apparatus as recited in claim 33, further comprising an inquiry function unit, coupled to said transmission unit, to inquire about functions of the application used by the requesting terminal when the application used by the requesting terminal is not registered in said conversion determination table.

35. An information distribution apparatus as recited in claim 33, wherein said converting unit converts, when the requested information includes content which cannot be processed by the requesting terminal, only that portion of the content which cannot be processed, depending on a converting system registered in said conversion determination table.

36. An information distribution apparatus as recited in claim 35, wherein a remaining portion of the content not processed by said converting unit is a link function or pointer function of XML.

37. A terminal apparatus used to receive an information distribution service that responds to an information distribution request from said terminal apparatus connected via a network by transmitting requested information to said terminal apparatus, comprising:

a requesting unit, coupled to the network, to include in the information distribution request information about at least one of an application used in said terminal apparatus and a function of the application.

38. A terminal used to receive an information distribution service that responds to an information distribution request from said terminal connected via a network by transmitting requested information to said terminal, comprising:

a computing unit, coupled to said network, which uses browser software on connection to the information distribution service to transmit, together with the information distribution request, information about at least one of application software which may be operated in cooperation with the browser software and application functions.

39. A storage medium storing a program controlling a computer to provide an information distribution service to receive an information distribution request from a terminal connected via a network and to transmit requested information to the terminal, by performing a method comprising:

storing a conversion determination table provided for management of applications which may be operated on the terminal and corresponding functions to be processed with such applications;

identifying an application used by the terminal when the information distribution request is accepted from the terminal;

determining whether a function of an identified application can process the requested information by referring to the conversion determination table;

converting the requested information into converted information in a format that can be processed by the terminal when it is determined that processing of the requested information by the terminal is impossible; and

transmitting the converted information to the terminal.

40. A storage medium as recited in claim 39, further comprising inquiring the terminal about functions of an application used by the terminal when the application used by the terminal does not exist in the conversion determination table.

41. A storage medium storing a program for controlling a computer to perform an information distribution service by receiving an information distribution request from a terminal connected via a network and transmitting requested information to the terminal, in a method comprising:

registering a conversion determination table provided for management of an application which can be processed on the terminal and corresponding functions which can be processed by the application;

identifying the application used in the terminal when the information distribution request is accepted from the terminal;

determining whether the requested information can be processed by the application by referring to the conversion determination table;

converting, when it is determined that the requested information cannot be processed by the application, the requested information into converted information in a format which can be processed by the terminal; and

transmitting the converted information to the terminal.

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